

FIGURE AO4410-1

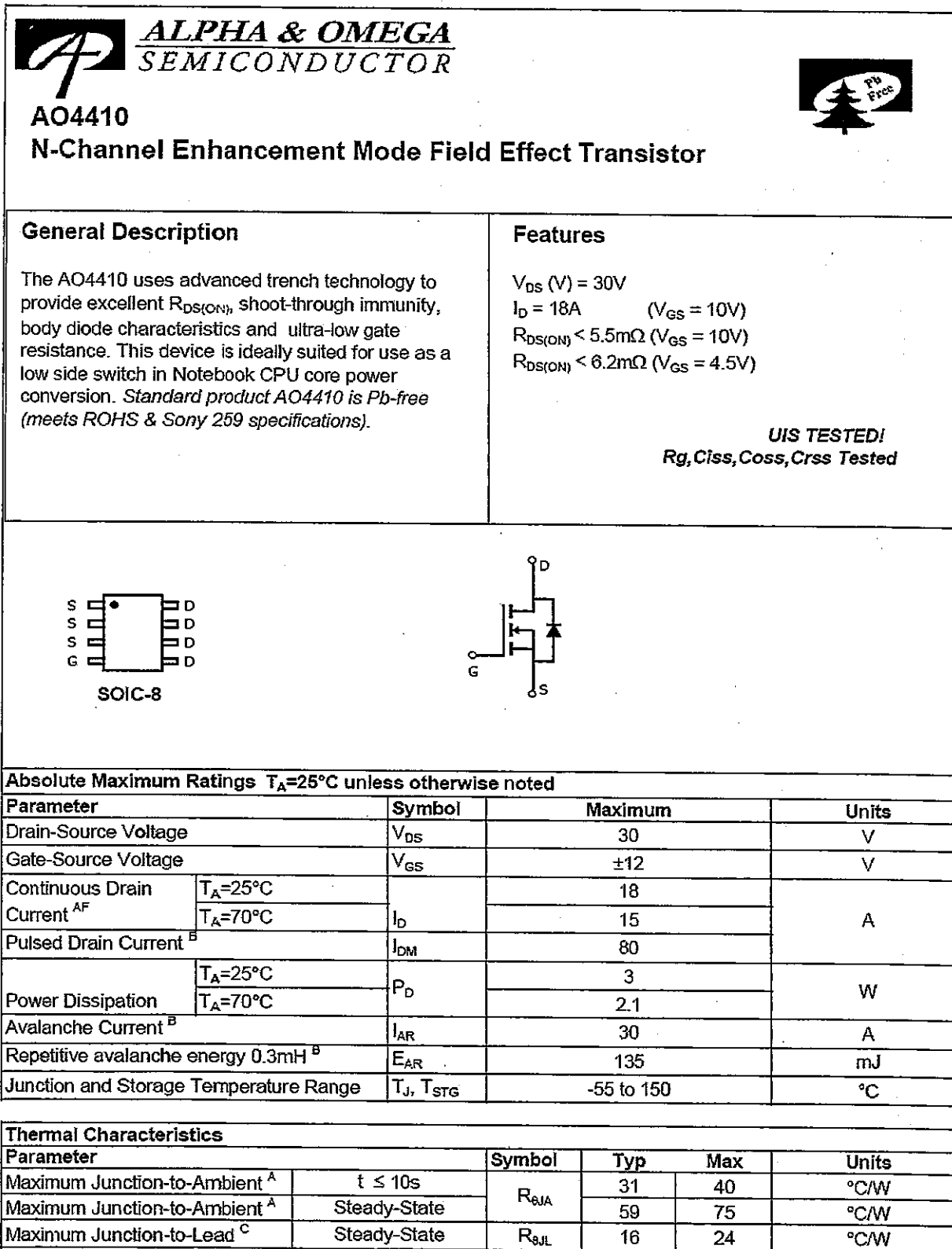


FIGURE AO4410-2

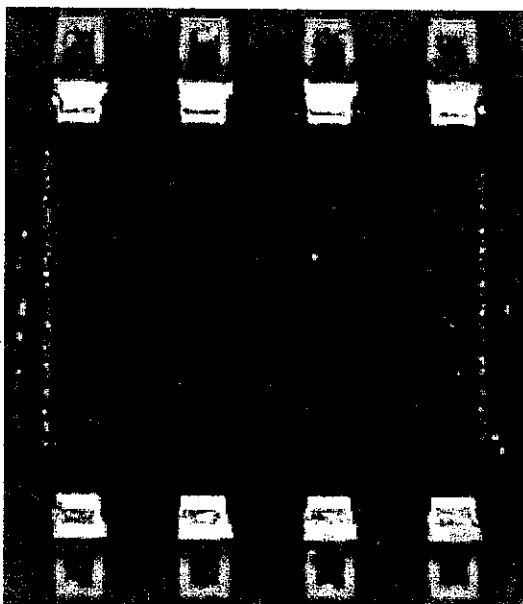


FIGURE AO4410-3

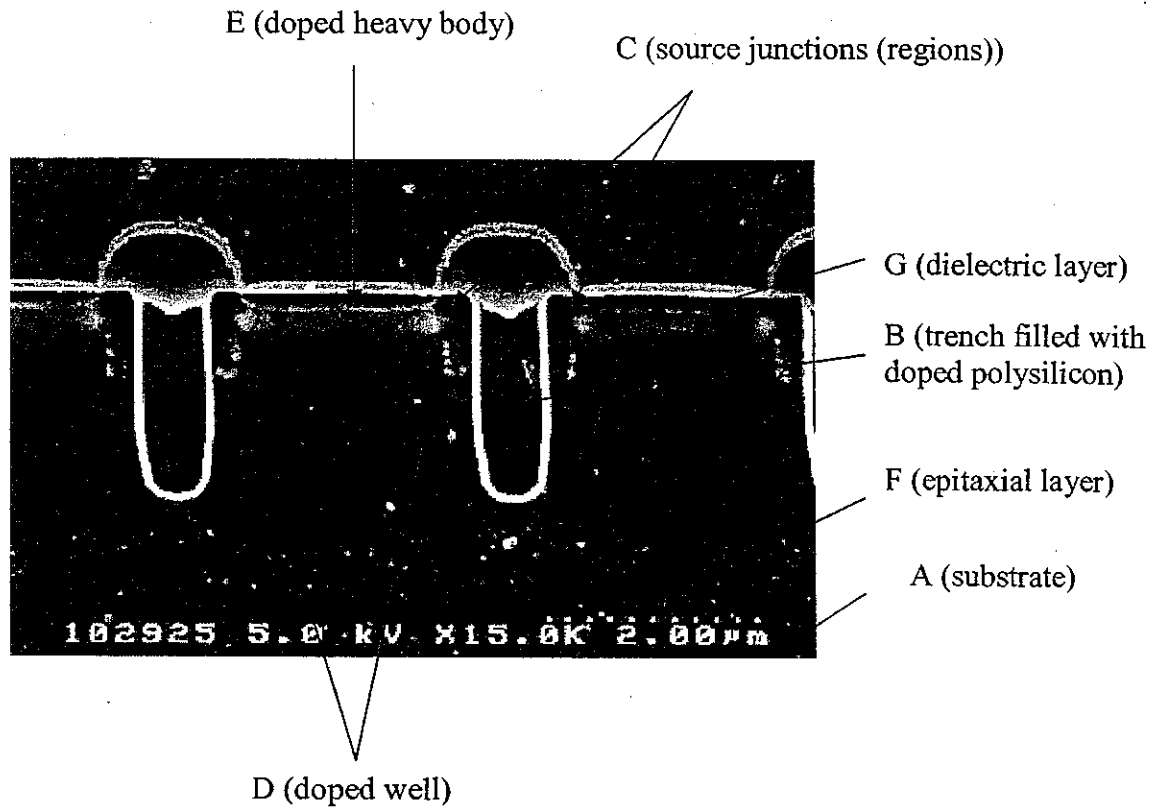


FIGURE AO4410-4

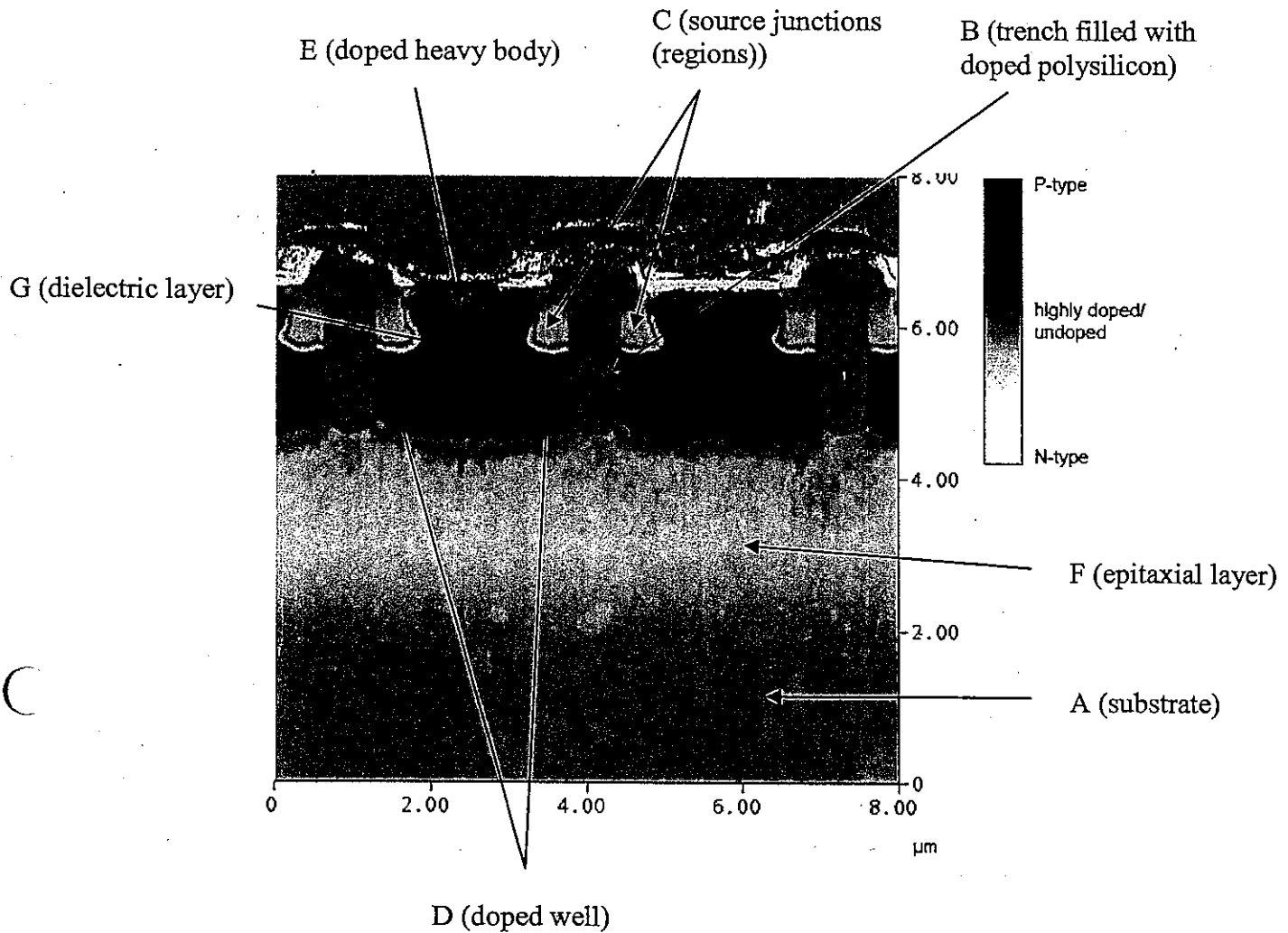
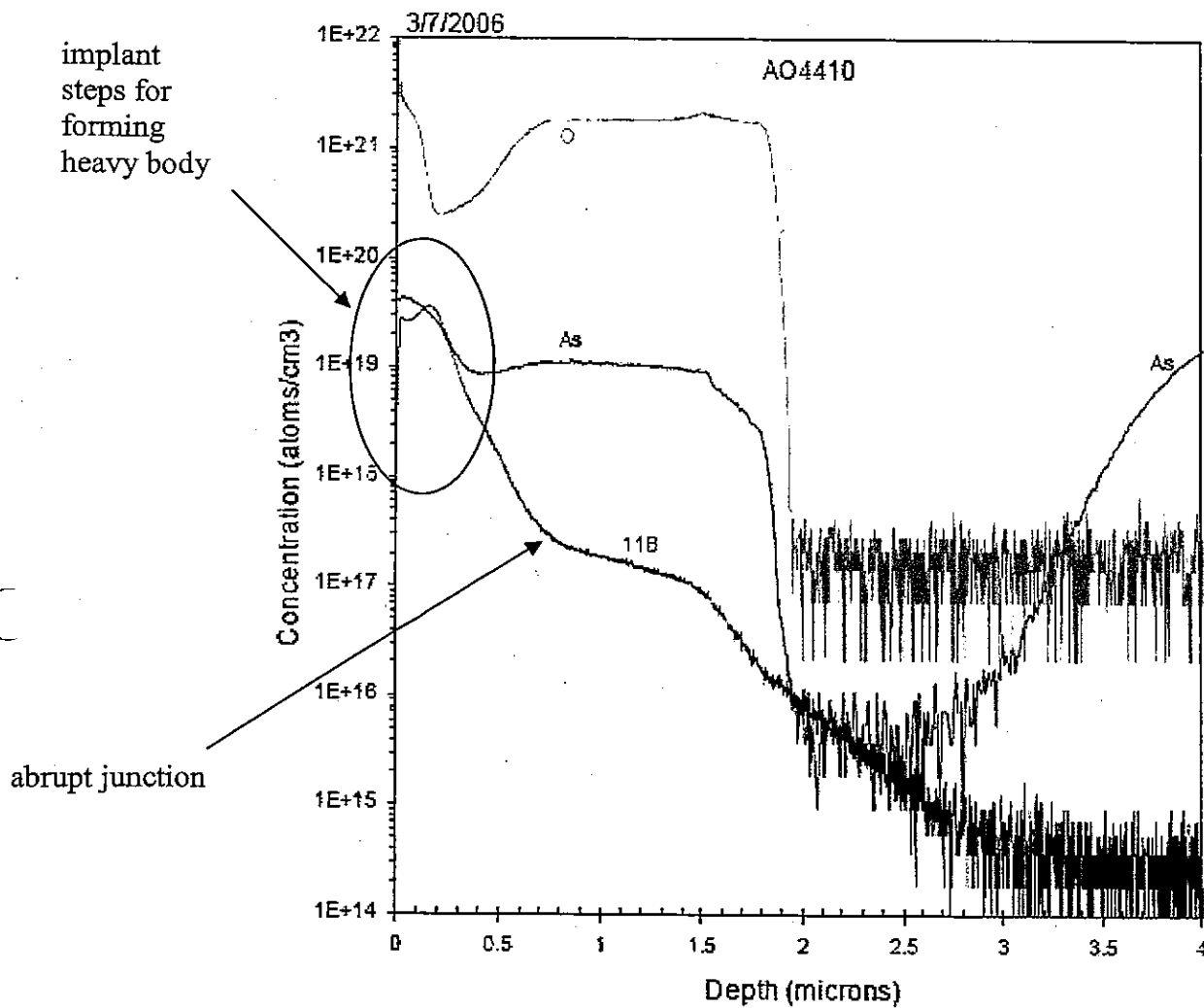


FIGURE AO4410-5



Secondary Ion Mass Spectroscopy Data for Boron, Arsenic, and Oxygen in MOSFET Array for AO4410

FIGURE AO4410-6

A (Field Termination
Structure)

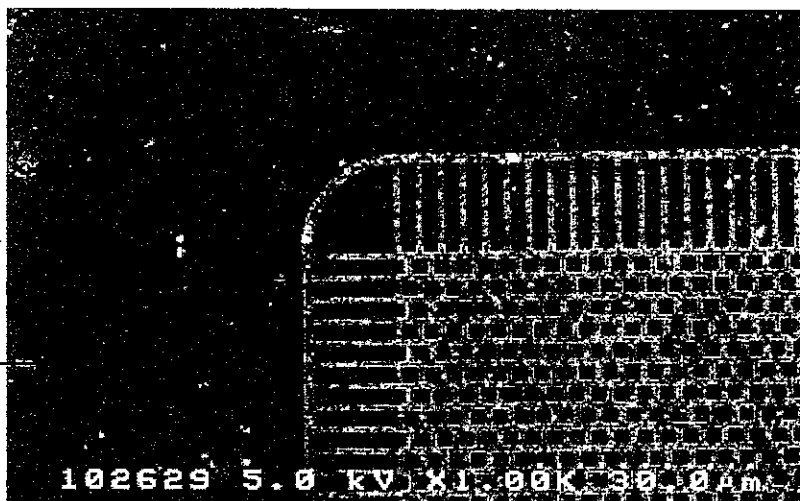


FIGURE AO4413A-1

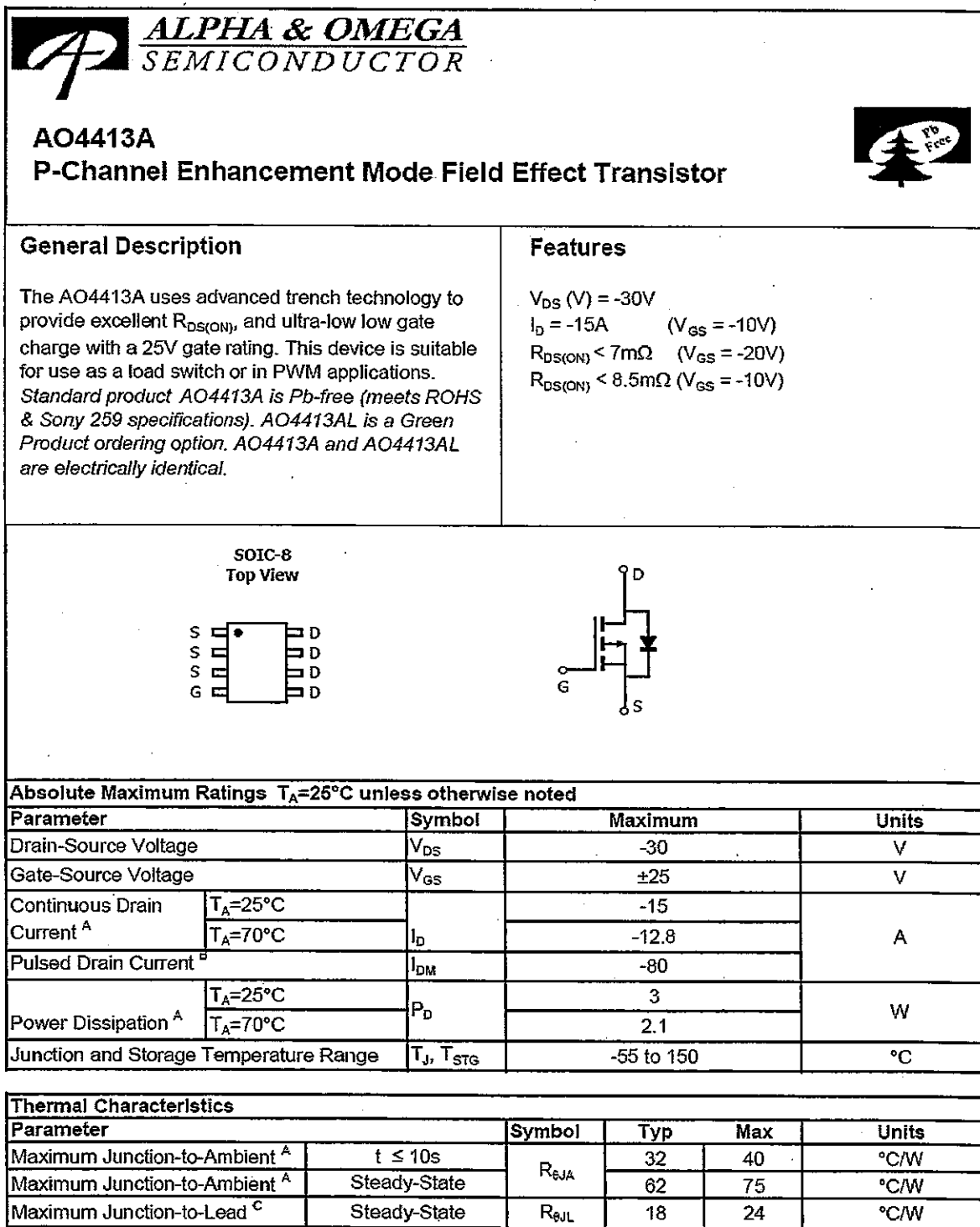


FIGURE AO4413A-2

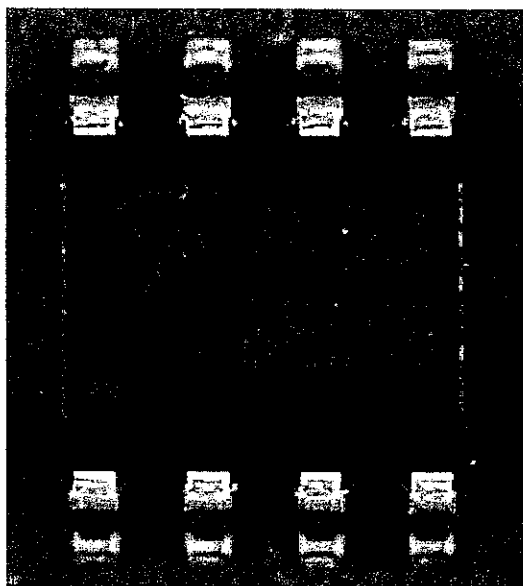


FIGURE AO4413A-3

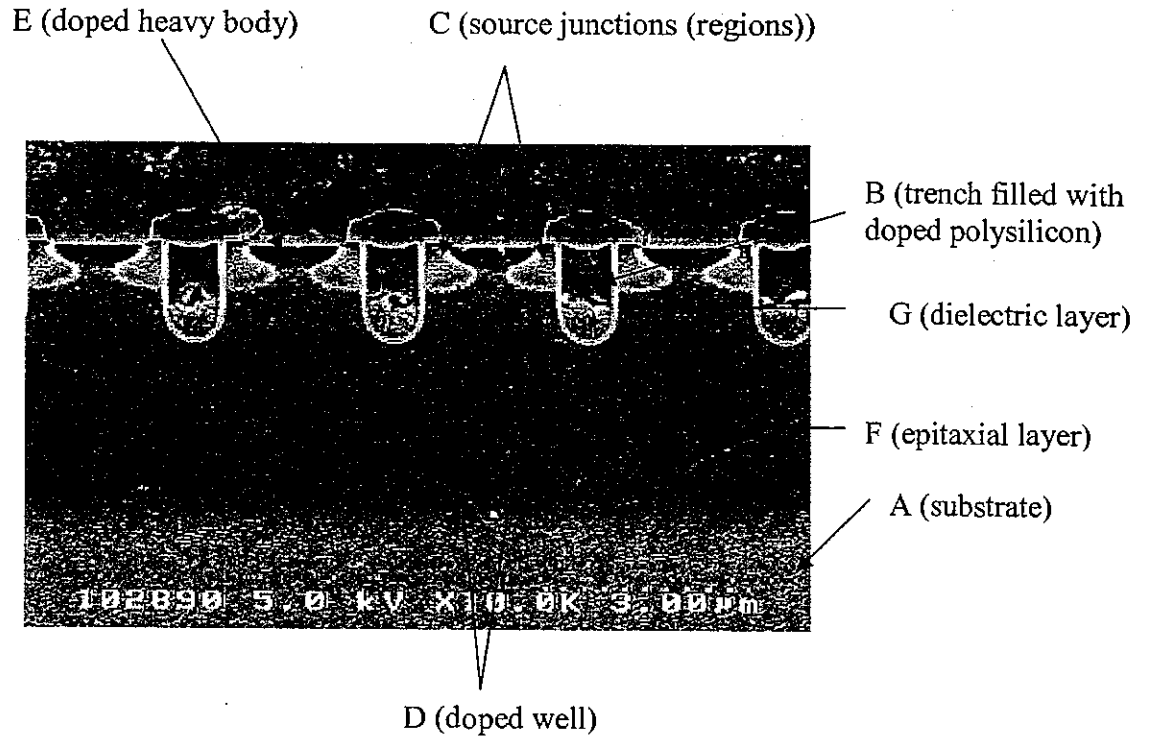


FIGURE AO4413A-4

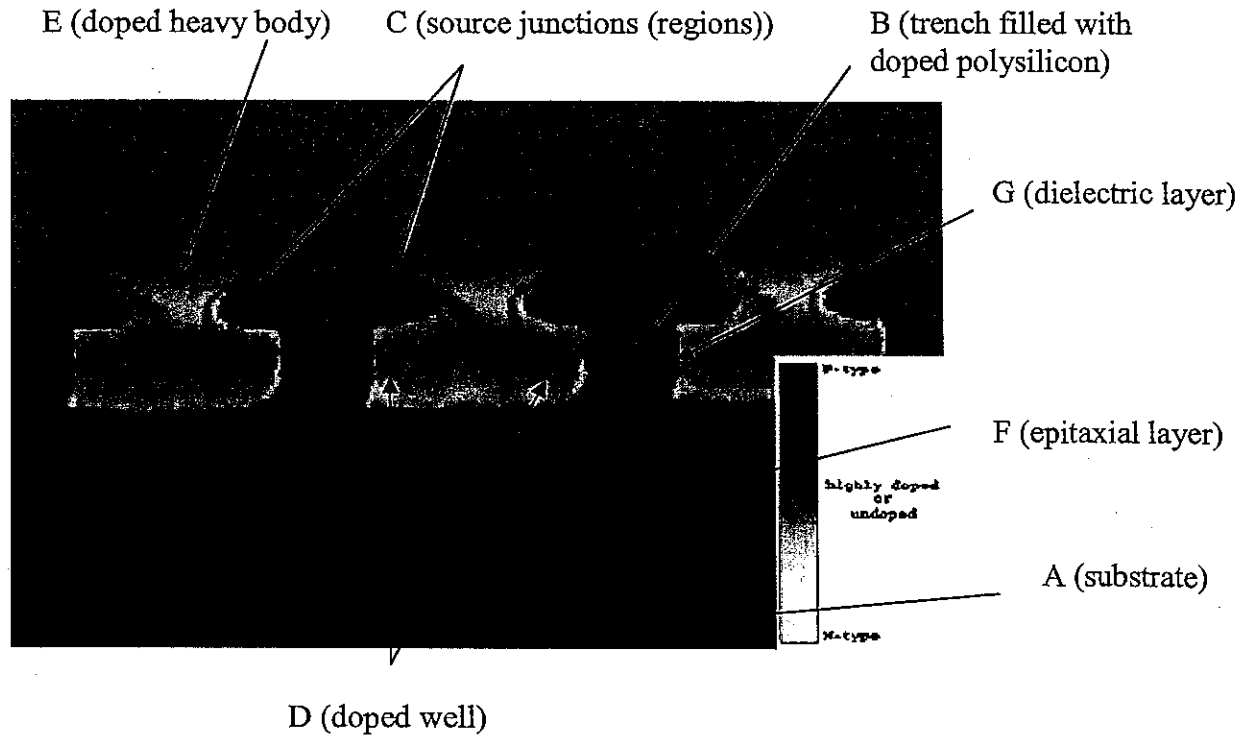
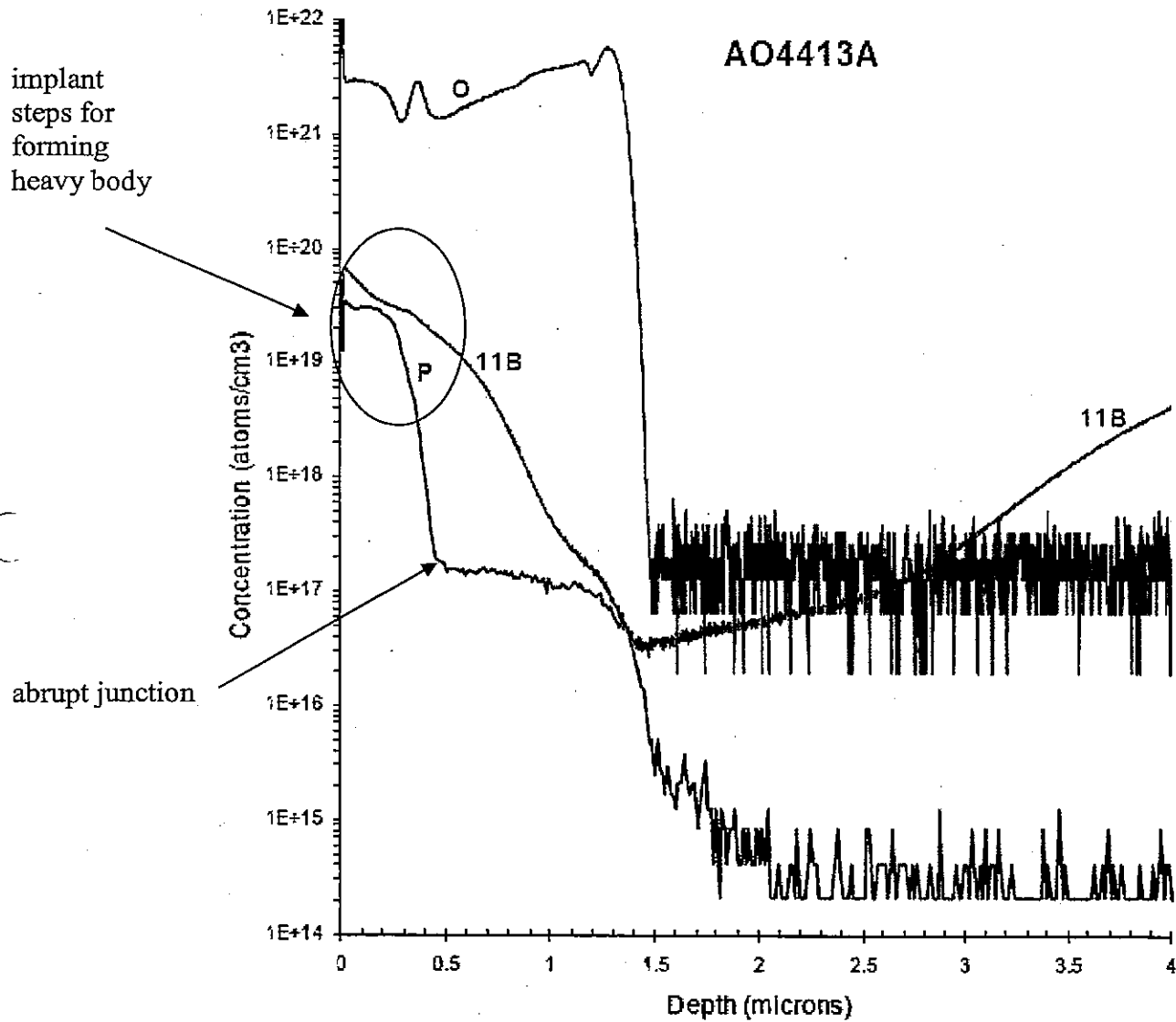


FIGURE AO4413A-5



Secondary Ion Mass Spectroscopy Data for Boron, Phosphorus, and Oxygen in MOSFET Array for AO4413A

FIGURE AO4413A-6

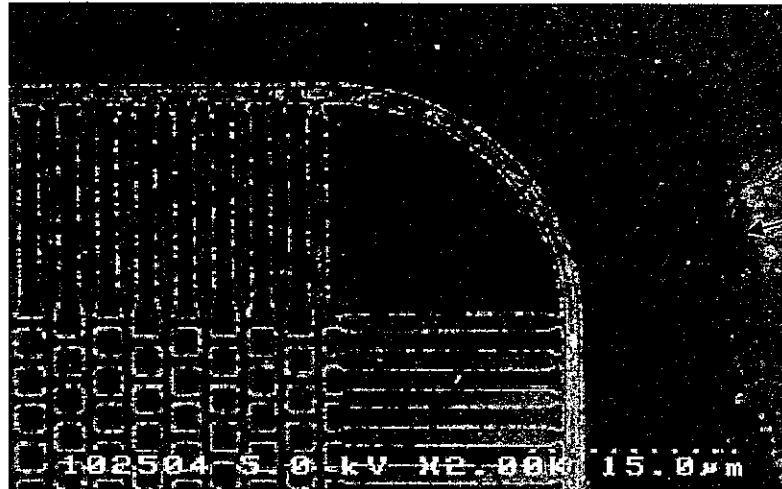


FIGURE AO4422-1



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Rev 3: Nov 2004

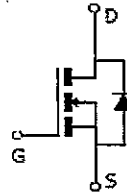
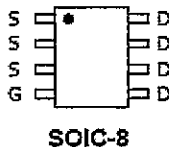
AO4422, AO4422L (Green Product)
N-Channel Enhancement Mode Field Effect Transistor

General Description

The AO4422 uses advanced trench technology to provide excellent $R_{DS(ON)}$ and low gate charge. This device is suitable for use as a load switch or in PWM applications. The source leads are separated to allow a Kelvin connection to the source, which may be used to bypass the source inductance. AO4422L (Green Product) is offered in a lead-free package.

Features

V_{DS} (V) = 30V
 I_D = 11A
 $R_{DS(ON)} < 15m\Omega$ ($V_{GS} = 10V$)
 $R_{DS(ON)} < 24m\Omega$ ($V_{GS} = 4.5V$)



Absolute Maximum Ratings $T_A=25^\circ\text{C}$ unless otherwise noted

Parameter	Symbol	Maximum	Units
Drain-Source Voltage	V_{DS}	30	V
Gate-Source Voltage	V_{GS}	± 20	V
Continuous Drain Current ^A	I_D	11	A
$T_A=25^\circ\text{C}$			
$T_A=70^\circ\text{C}$		9.3	
Pulsed Drain Current ^B	I_{DM}	50	
Power Dissipation	P_D	3	W
$T_A=25^\circ\text{C}$			
$T_A=70^\circ\text{C}$		2.1	
Junction and Storage Temperature Range	T_J, T_{STG}	-55 to 150	$^\circ\text{C}$

Thermal Characteristics

Parameter		Symbol	Typ	Max	Units
Maximum Junction-to-Ambient ^A	$t \leq 10s$	$R_{\theta JA}$	31	40	$^\circ\text{C/W}$
Maximum Junction-to-Ambient ^A	Steady-State		59	75	$^\circ\text{C/W}$
Maximum Junction-to-Lead ^C	Steady-State	$R_{\theta JL}$	16	24	$^\circ\text{C/W}$

FIGURE AO4422-2

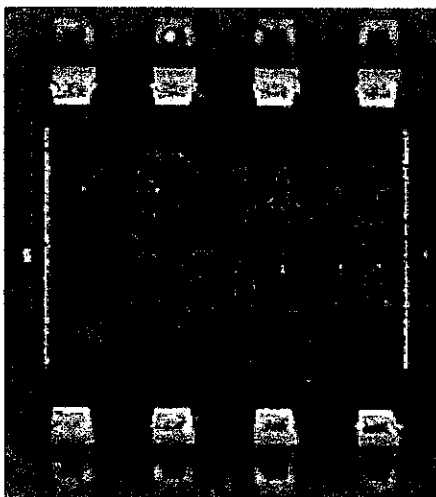


FIGURE AO4422-3

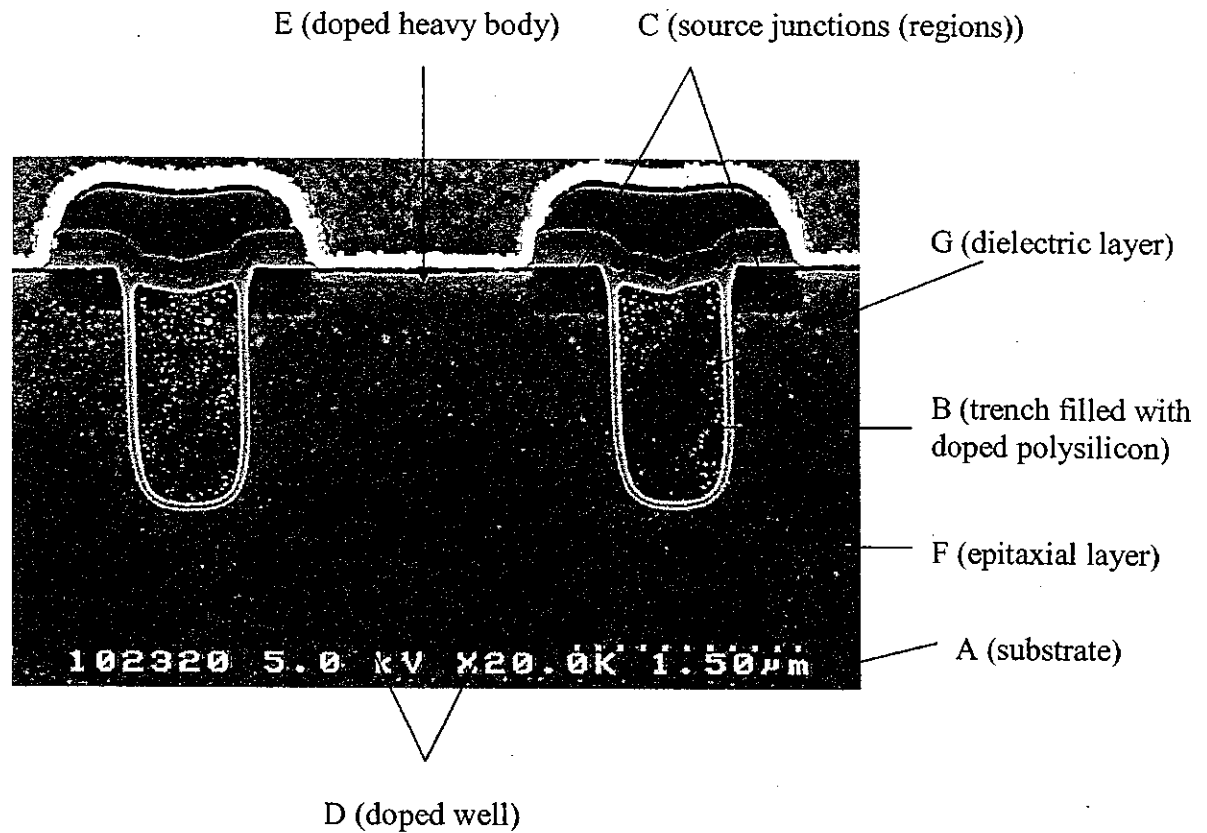


FIGURE AO4422-4

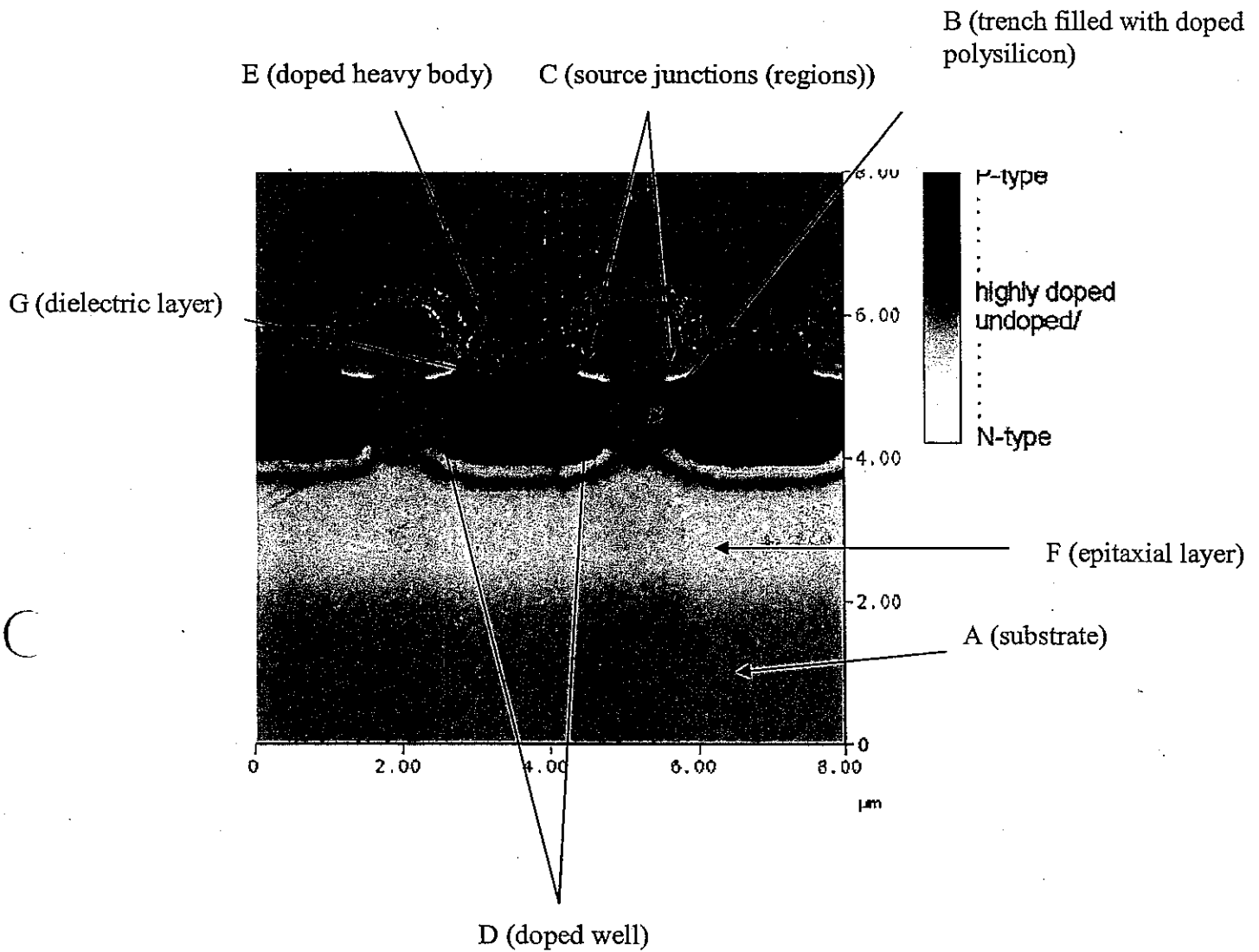
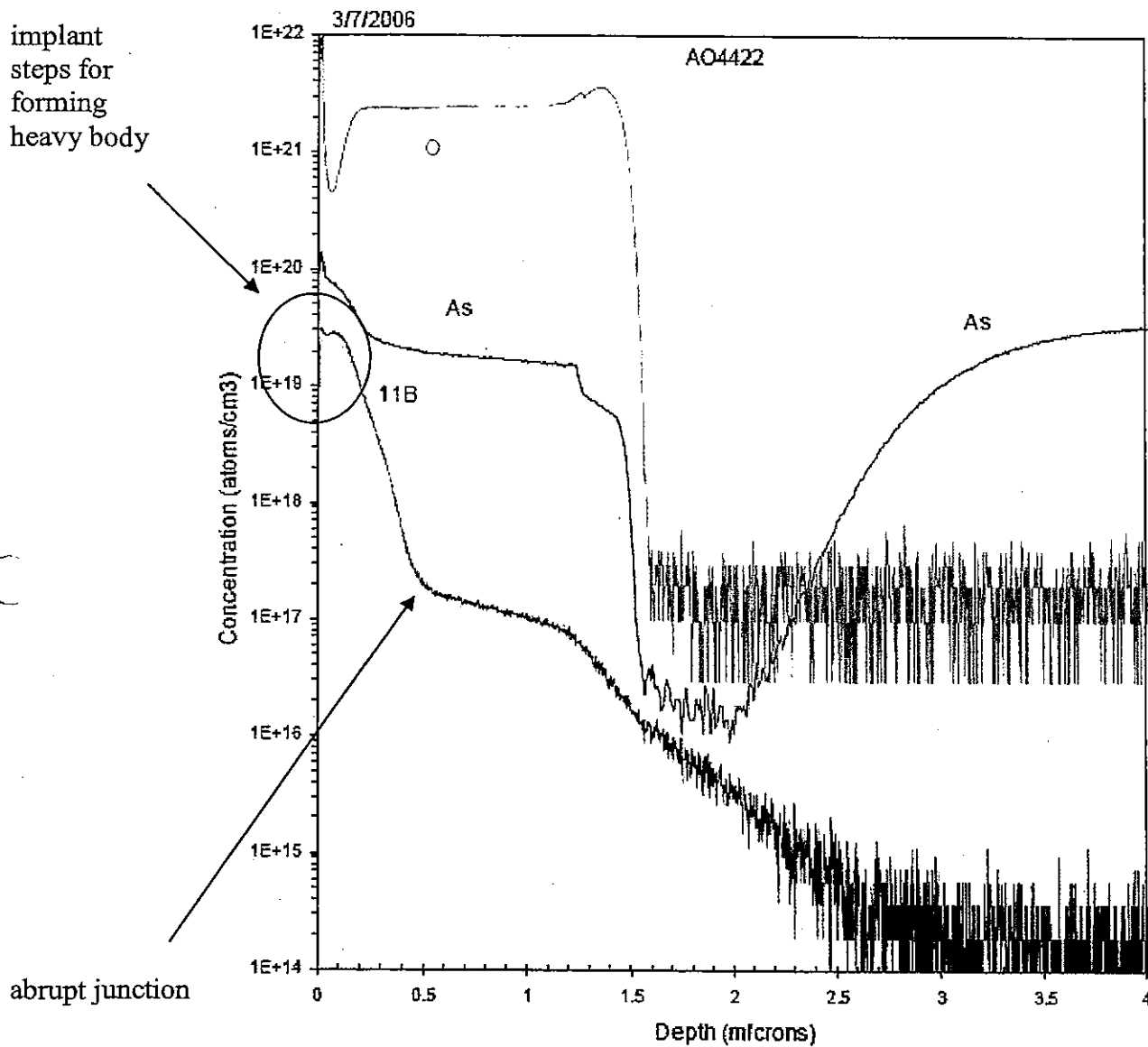
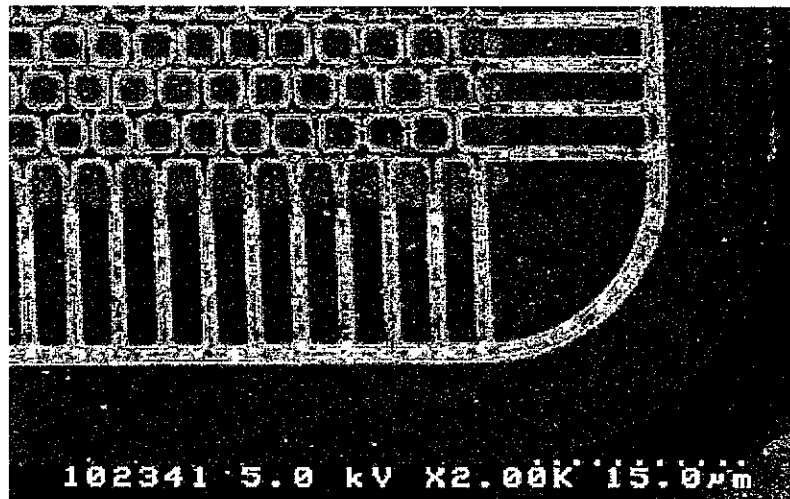


FIGURE AO4422-5



Secondary Ion Mass Spectroscopy Data for Boron, Arsenic, and Oxygen in MOSFET Array for AO4422

FIGURE AO4422-6



A (Field Termination Structure)

FIGURE AO4468-1

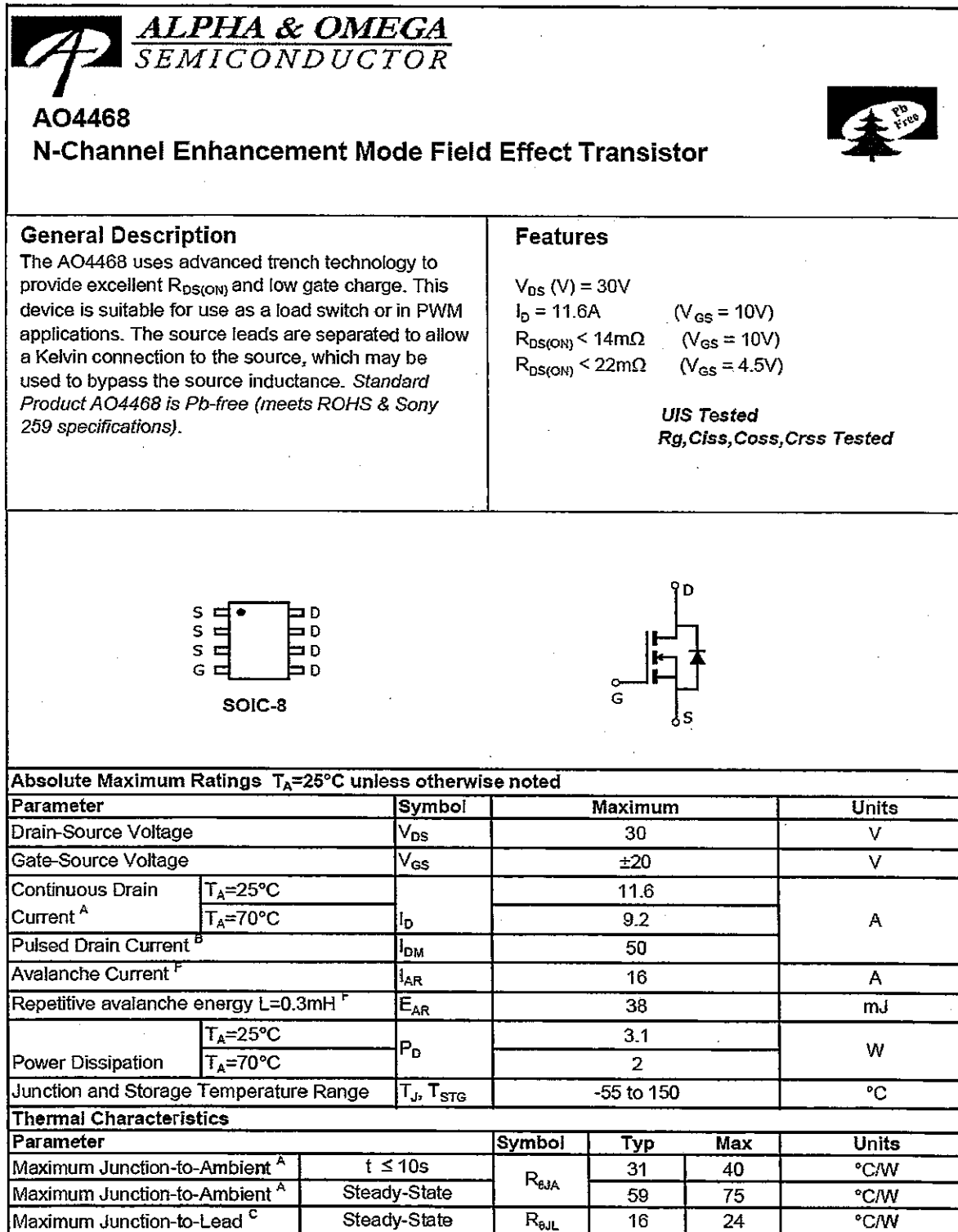


FIGURE AO4468-2

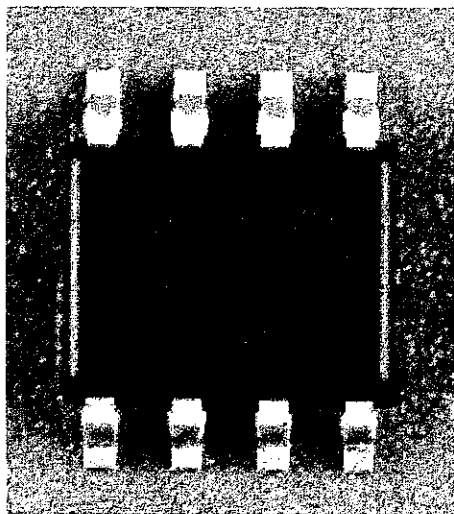


FIGURE AO4468-3

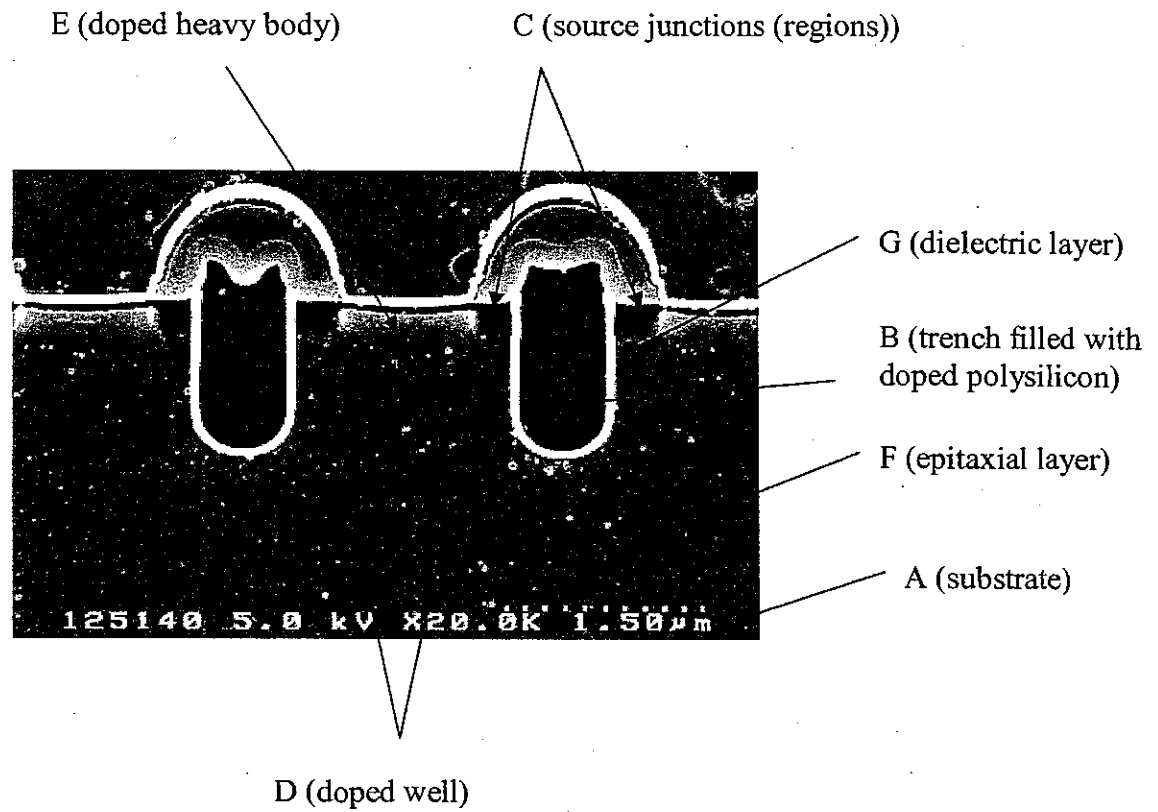


FIGURE AO4468-4

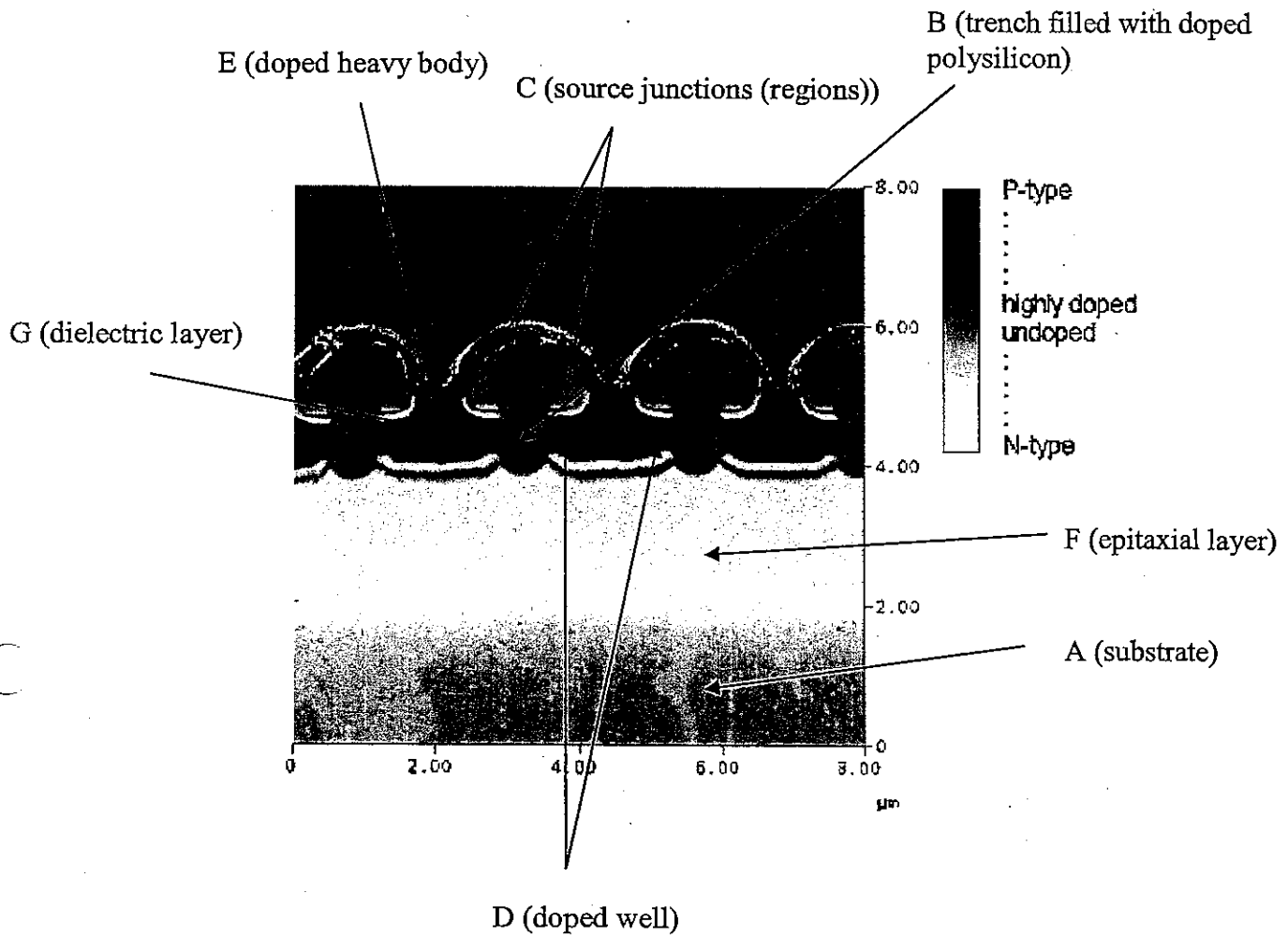
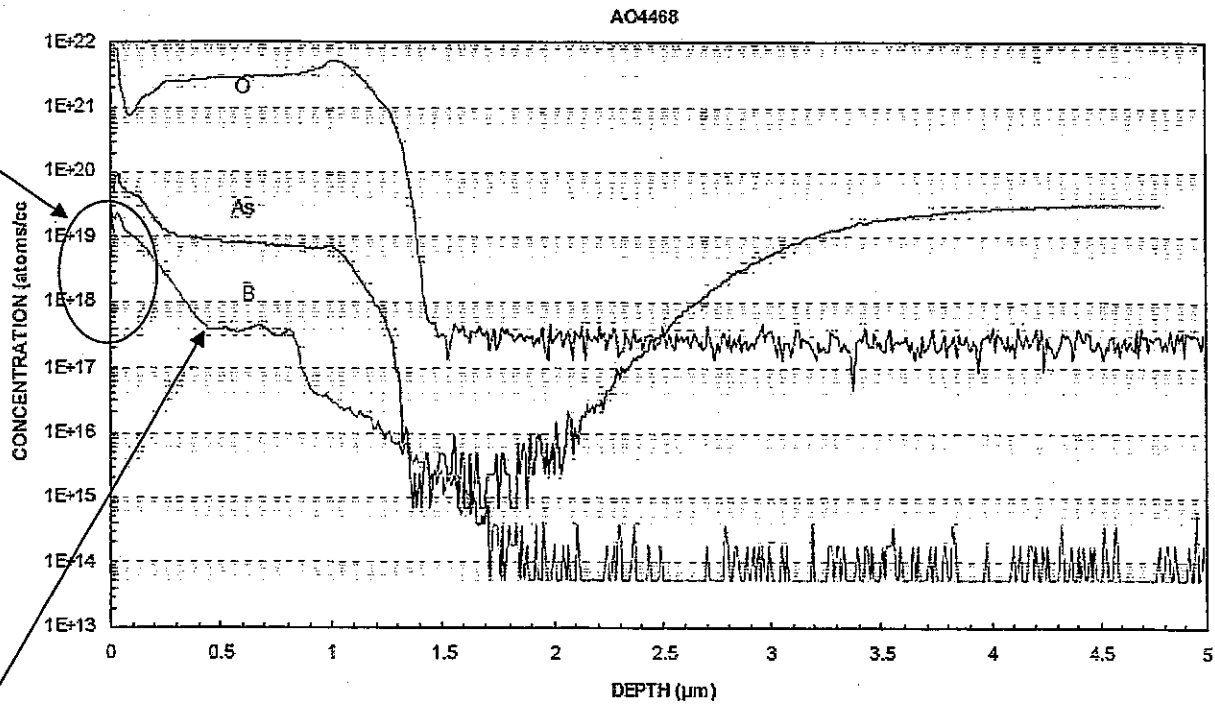


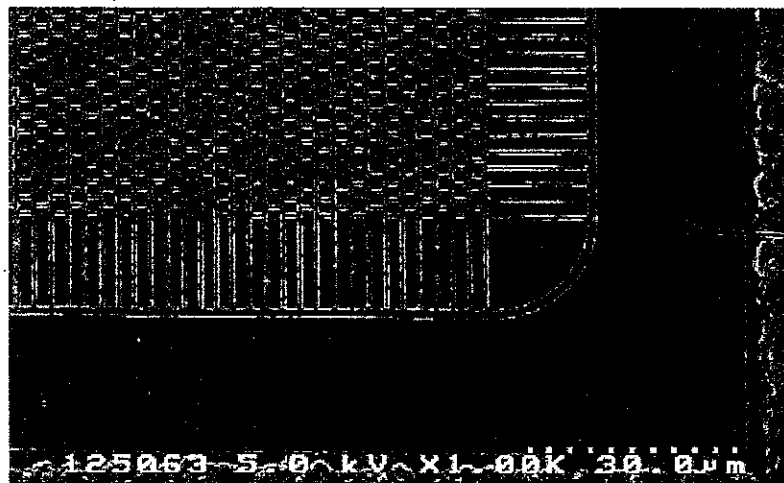
FIGURE AO4468-5

implant
steps for
forming
heavy body



abrupt junction

FIGURE AO4468-6



A (Field Termination Structure)

FIGURE AO4704-1

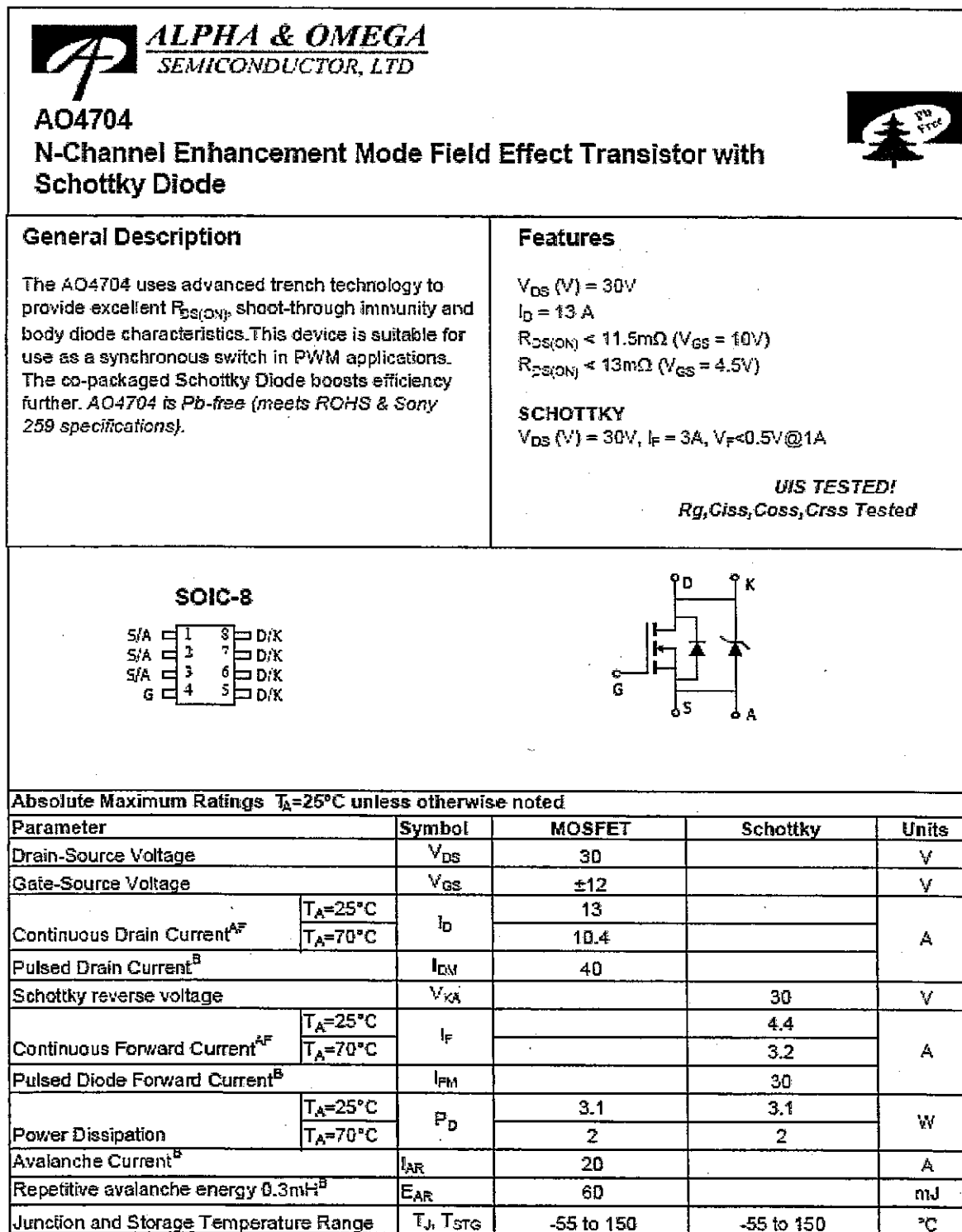


FIGURE AO4704-2

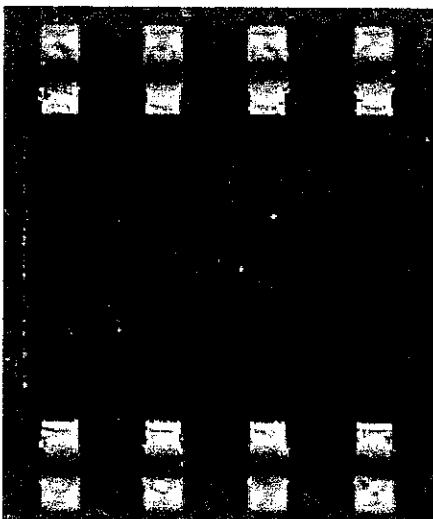


FIGURE AO4704-3

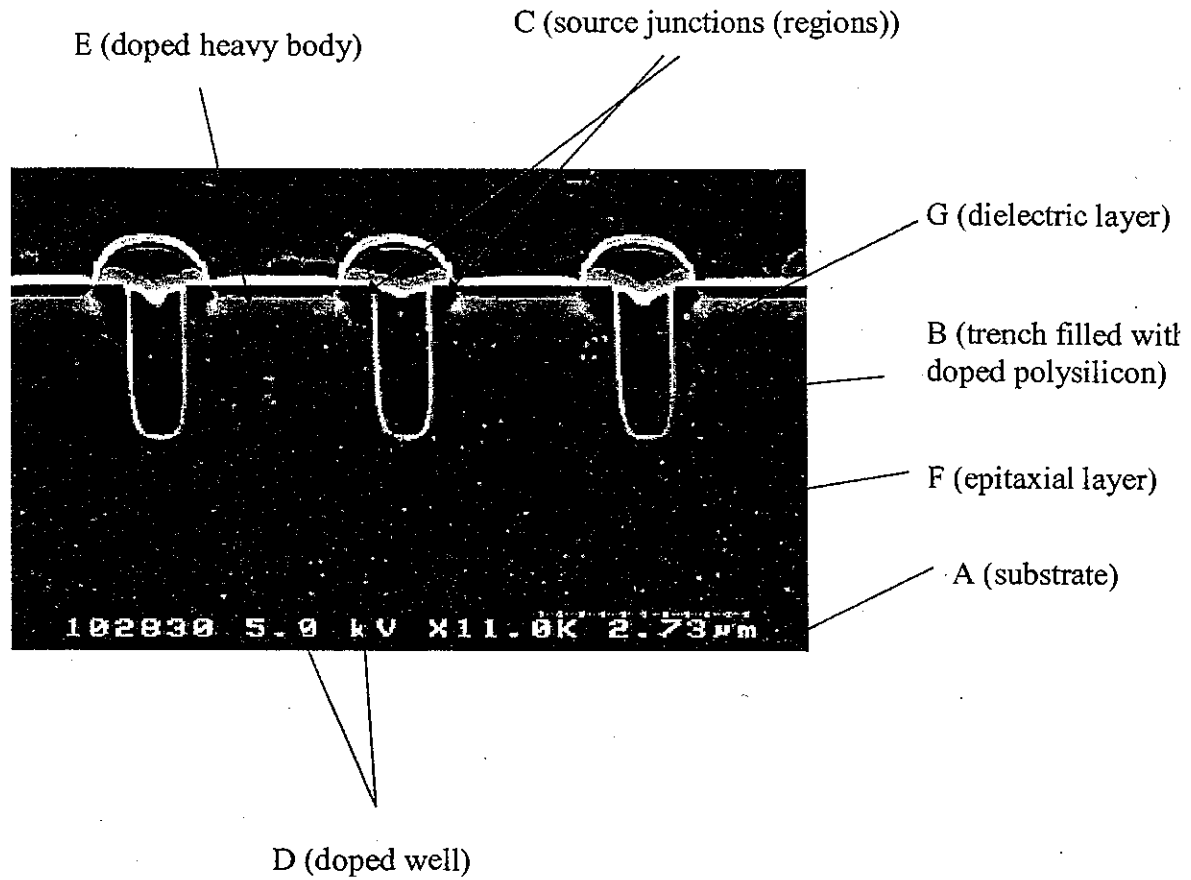


FIGURE AO4704-4

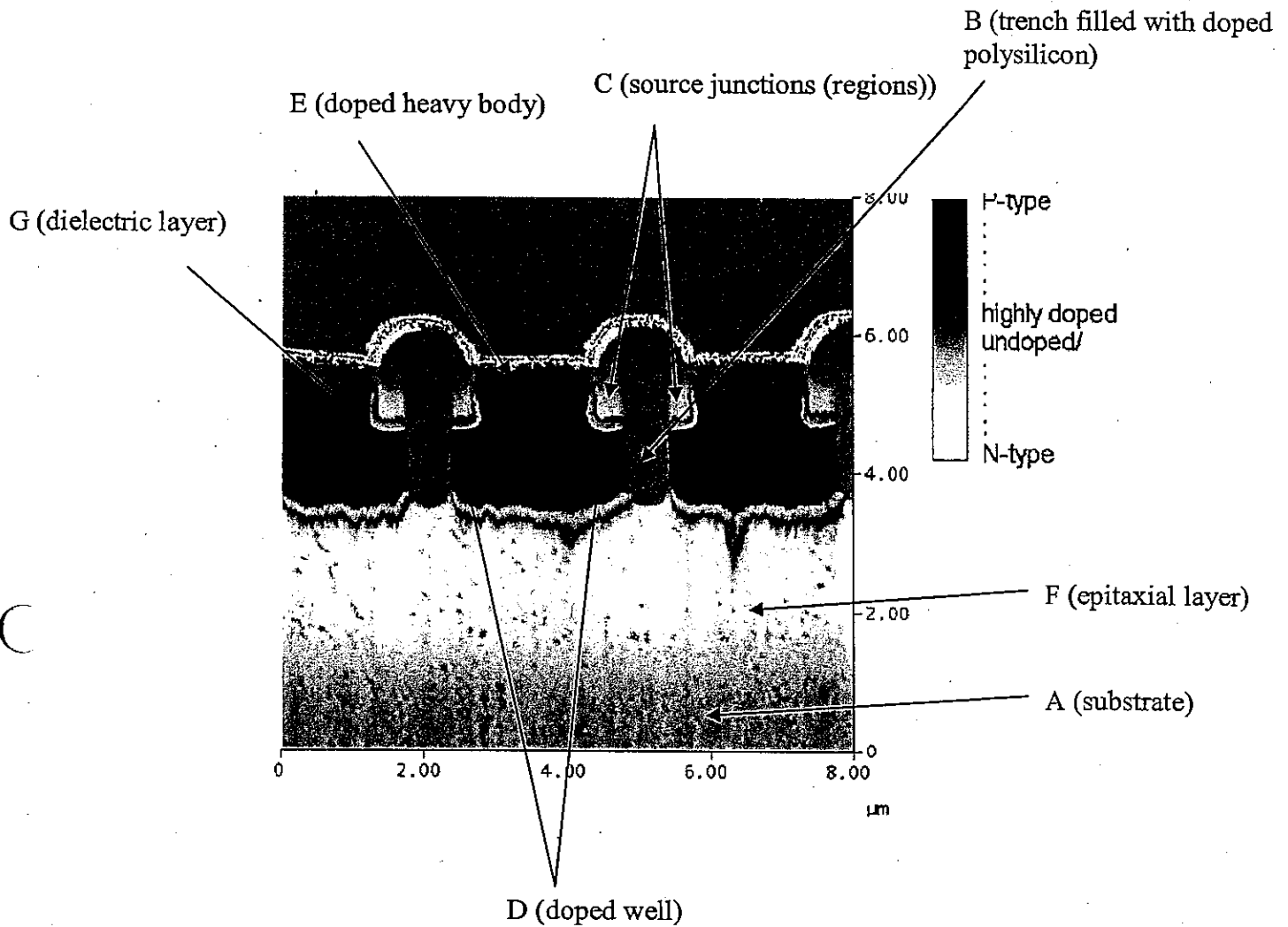
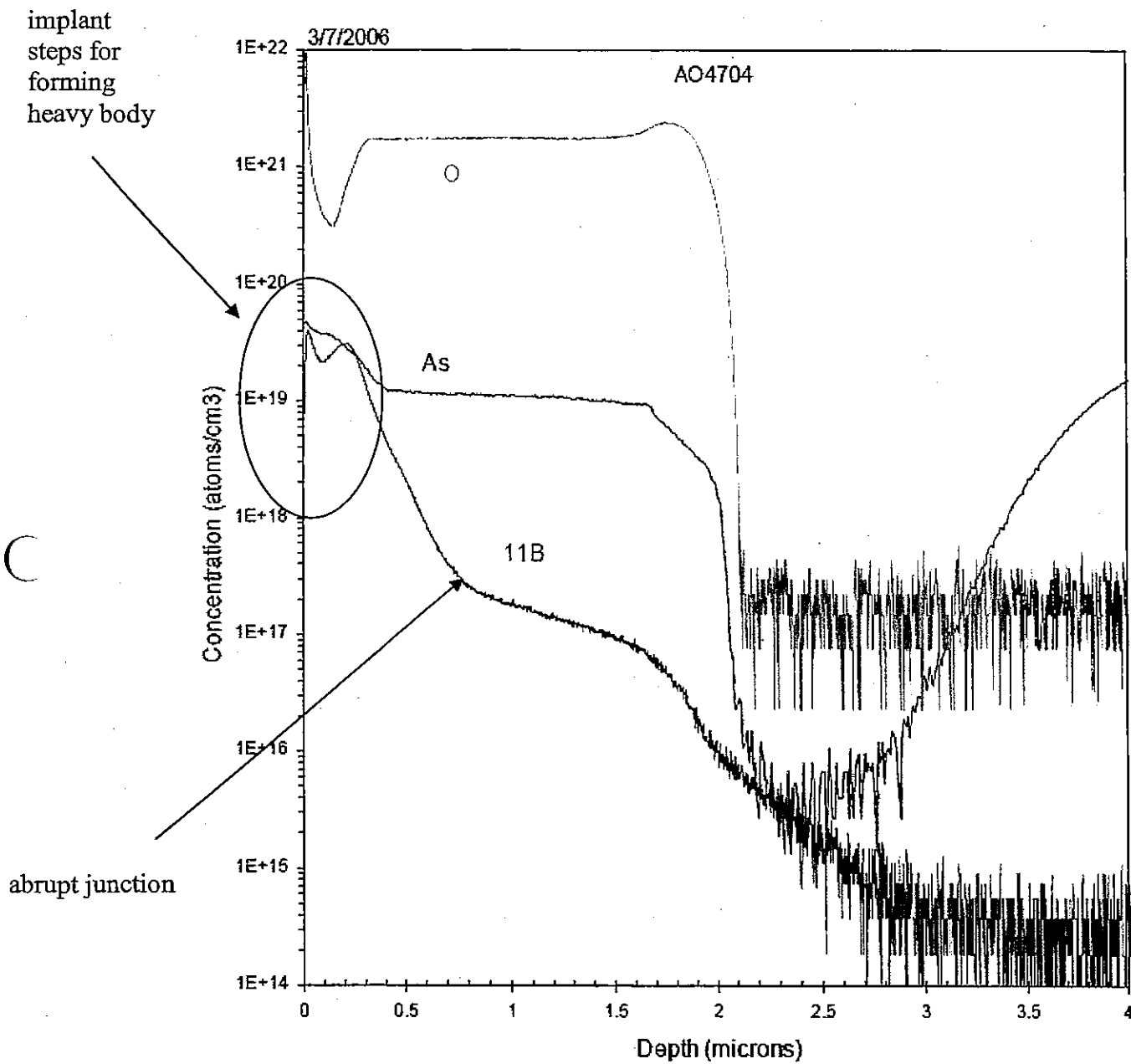
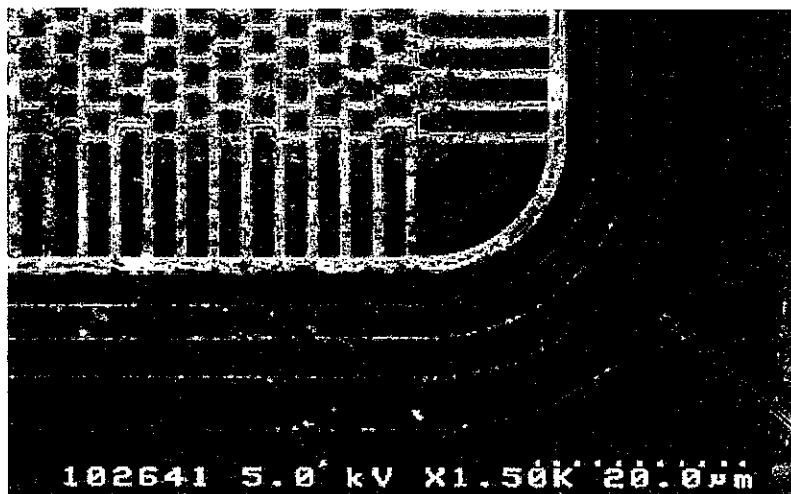


FIGURE AO4704-5



Secondary Ion Mass Spectroscopy Data for Boron, Arsenic, and Oxygen in MOSFET Array for AO4704

FIGURE AO4704-6



A (Field Termination Structure)

FIGURE AO4812-1

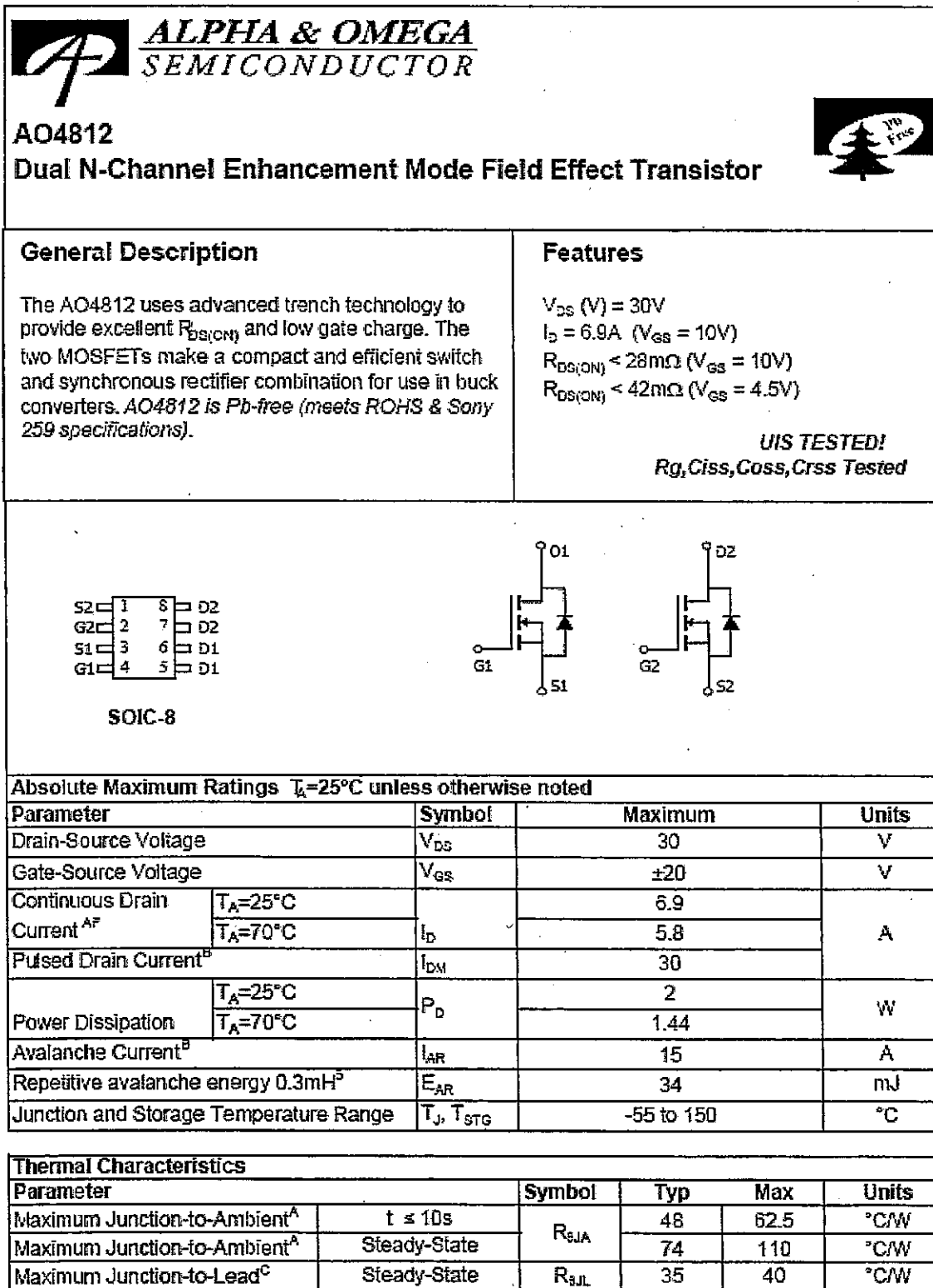


FIGURE AO4812-2

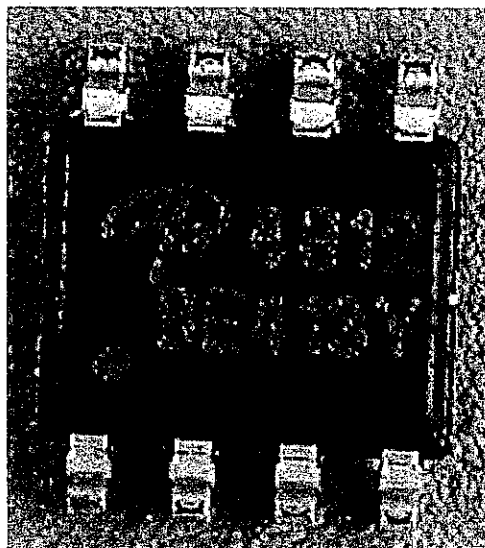


FIGURE AO4812-3

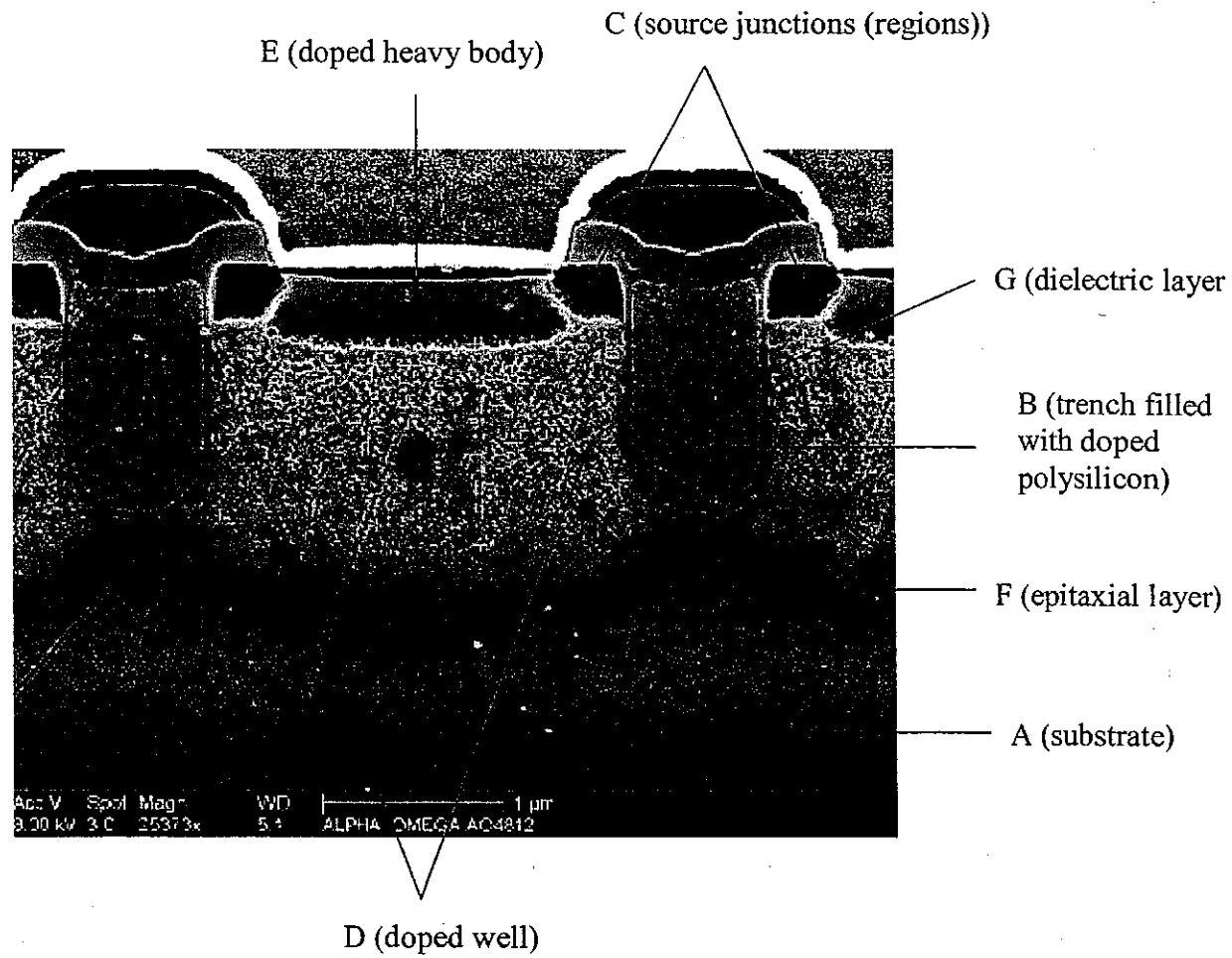


FIGURE AO4812-4

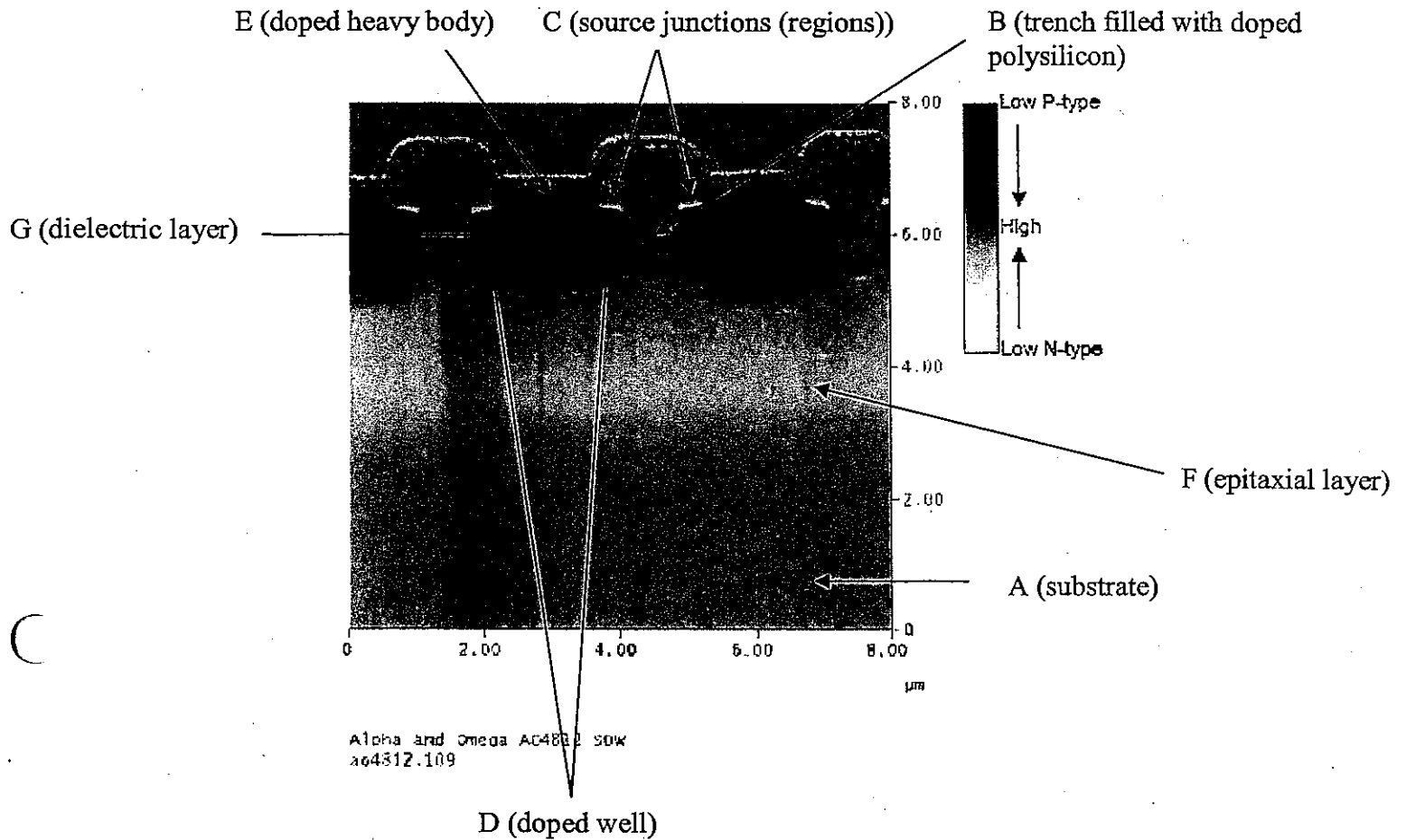
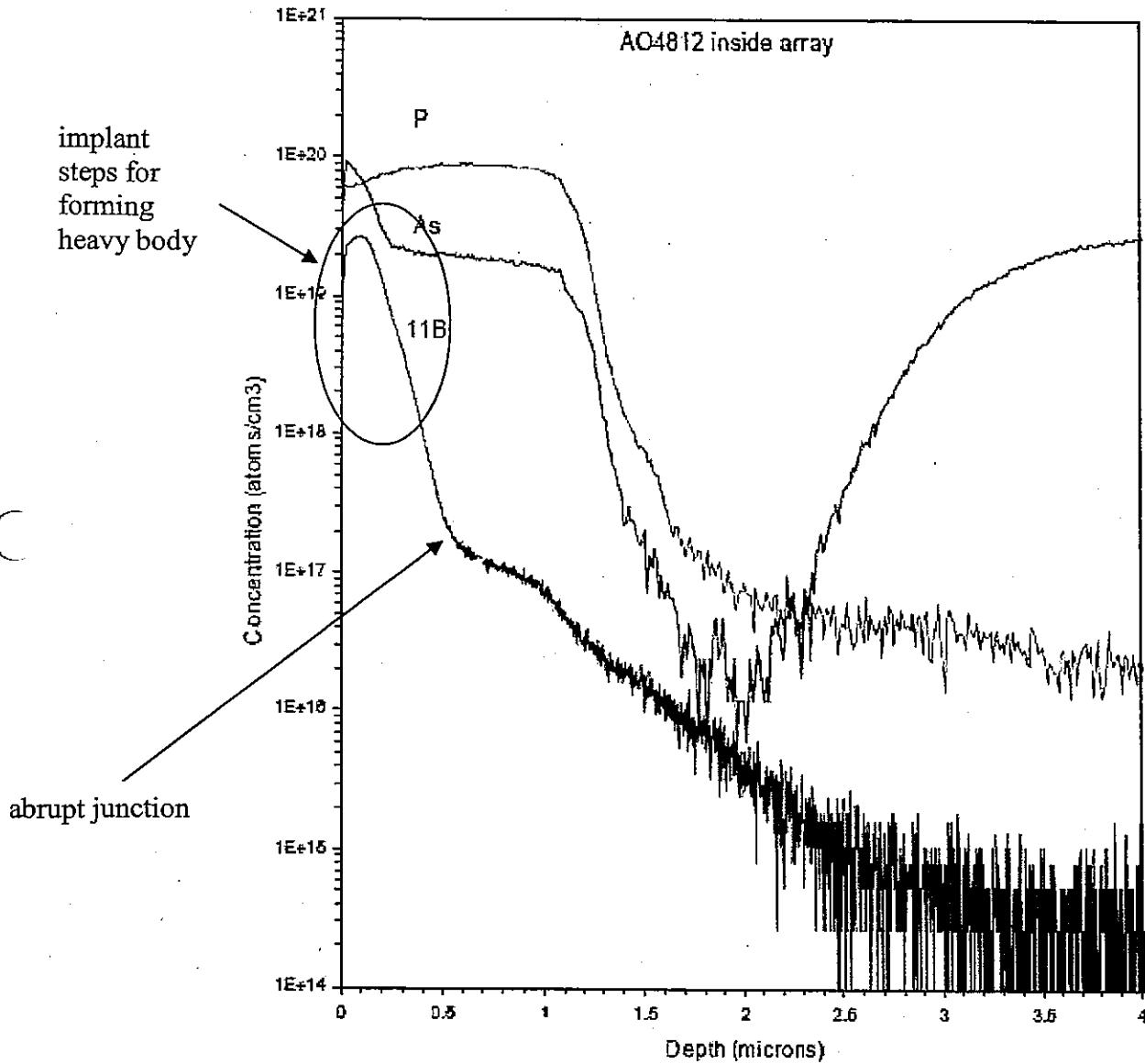
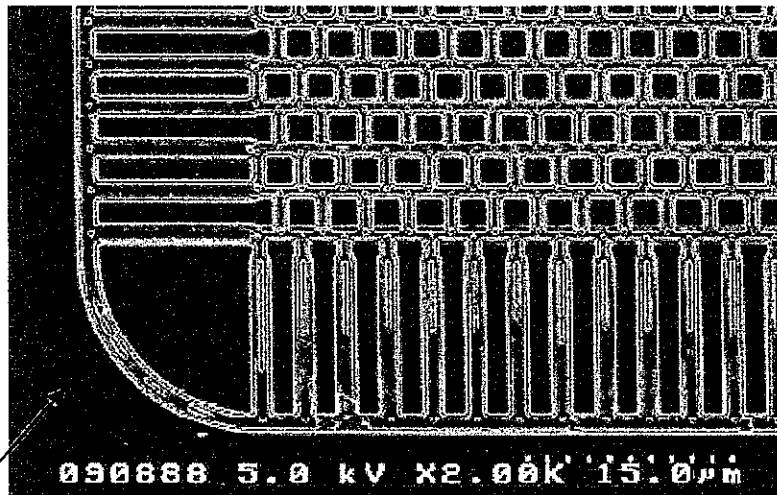


FIGURE AO4812-5



Secondary Ion Mass Spectroscopy Data for Boron, Arsenic, and Phosphorus in MOSFET Array for AO4812

FIGURE AO4812-6



A (Field Termination
Structure)

